

Title (en)
ALLOY WIRE, PREPARATION METHOD THEREFOR AND USE THEREOF

Title (de)
LEGIERUNGSDRAHT, HERSTELLUNGSVERFAHREN DAFÜR UND VERWENDUNG DAVON

Title (fr)
FIL EN ALLIAGE, PROCÉDÉ DE PRÉPARATION ASSOCIÉ ET SON UTILISATION CORRESPONDANTE

Publication
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Application
EP 21920595 A 20210827

Priority
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Abstract (en)
[origin: EP4212642A1] The present disclosure relates to the technical field of tungsten alloy materials, and in particular to an alloy wire rod and a preparation method and application thereof. The alloy wire rod is made of a tungsten alloy, and the tungsten alloy contains tungsten and an oxide of cerium. The alloy wire rod has a wire diameter of equal to or less than 100 µm; and the alloy wire rod has a tensile strength of greater than 3,800 MPa. The wire diameter of the alloy wire rod is equal to or less than 60 µm; the diameter of a push-pull core wire of the alloy wire rod is less than 350 µm; the elastic ultimate strength of the alloy wire rod is greater than 2,500 MPa; and the tensile strength of the alloy wire is greater than 4,200 MPa. In the present disclosure, the alloy wire rod having ultra-high strength and good toughness is obtained by doping an oxide of cerium.

IPC 8 full level
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C-Set (source: EP)
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Citation (search report)
• [Y] WO 2020137255 A1 20200702 - PANASONIC IP MAN CO LTD [JP]
• [Y] EP 0765949 A1 19970402 - OSRAM SYLVANIA INC [US]
• [Y] JP 2011125961 A 20110630 - ALLIED MATERIAL CORP
• See also references of WO 2022156216A1

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